RAW SEQUENCE LISTING

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Application Serial Number: _____ 09/747,521ß

Source: _____ IFWI6

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IFW16

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/747,521B

DATE: 11/20/2006
TIME: 13:38:16

Input Set : N:\efs\09747521b_efr\sequen1.txt
Output Set: N:\CRF4\11202006\I747521B.raw

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 3 <110> APPLICANT: GALLOWAY, DARREL R.
 4        MATECZUN, ALFRED J.
 6 <120> TITLE OF INVENTION: METHODS FOR PROTECTION AGAINST LETHAL INFECTION WITH
 7        BACILLUS ANTHRACIS
 9 <130> FILE REFERENCE: 22727-04079
11 <140> CURRENT APPLICATION NUMBER: 09/747,521B
12 <141> CURRENT FILING DATE: 2000-12-21
14 <150> PRIOR APPLICATION NUMBER: 60/171,459
15 <151> PRIOR FILING DATE: 1999-12-22
17 <160> NUMBER OF SEQ ID NOS: 10
19 <170> SOFTWARE: PatentIn Ver. 3.3
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22 <211> LENGTH: 2430
23 <212> TYPE: DNA
24 <213> ORGANISM: Bacillus anthracis
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27 <221> NAME/KEY: CDS
28 <222> LOCATION: (1)..(2427)
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35 gta aca gca att act ttg agt ggt ccc gtc ttt atc ccc ctt gta cag    96
36 Val Thr Ala Ile Thr Leu Ser Gly Pro Val Phe Ile Pro Leu Val Gln
37              20                  25                  30
39 ggg gcg ggc ggt cat ggt gat gta ggt atg cac gta aaa gag aaa gag   144
40 Gly Ala Gly Gly His Gly Asp Val Gly Met His Val Lys Glu Lys Glu
41          35                  40                  45
43 aaa aat aaa gat gag aat aag aga aaa gat gaa gaa cga aat aaa aca   192
44 Lys Asn Lys Asp Glu Asn Lys Arg Lys Asp Glu Glu Arg Asn Lys Thr
45      50                  55                  60
47 cag gaa gag cat tta aag gaa atc atg aaa cac att gta aaa ata gaa   240
48 Gln Glu Glu His Leu Lys Glu Ile Met Lys His Ile Val Lys Ile Glu
49  65                  70                  75                  80
51 gta aaa ggg gag gaa gct gtt aaa aaa gag gca gca gaa aag cta ctt   288
52 Val Lys Gly Glu Glu Ala Val Lys Lys Glu Ala Ala Glu Lys Leu Leu
53                  85                  90                  95
55 gag aaa gta cca tct gat gtt tta gag atg tat aaa gca att gga gga   336
56 Glu Lys Val Pro Ser Asp Val Leu Glu Met Tyr Lys Ala Ile Gly Gly
57             100                 105                 110
59 aag ata tat att gtg gat ggt gat att aca aaa cat ata tct tta gaa   384
60 Lys Ile Tyr Ile Val Asp Gly Asp Ile Thr Lys His Ile Ser Leu Glu
61             115                 120                 125
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63 gca tta tct gaa gat aag aaa aaa ata aaa gac att tat ggg aaa gat    432
64 Ala Leu Ser Glu Asp Lys Lys Lys Ile Lys Asp Ile Tyr Gly Lys Asp
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67 gct tta tta cat gaa cat tat gta tat gca aaa gaa gga tat gaa ccc    480
68 Ala Leu Leu His Glu His Tyr Val Tyr Ala Lys Glu Gly Tyr Glu Pro
69 145               150               155               160
71 gta ctt gta atc caa tct tcg gaa gat tat gta gaa aat act gaa aag    528
72 Val Leu Val Ile Gln Ser Ser Glu Asp Tyr Val Glu Asn Thr Glu Lys
73               165               170               175
75 gca ctg aac gtt tat tat gaa ata ggt aag ata tta tca agg gat att    576
76 Ala Leu Asn Val Tyr Tyr Glu Ile Gly Lys Ile Leu Ser Arg Asp Ile
77               180               185               190
79 tta agt aaa att aat caa cca tat cag aaa ttt tta gat gta tta aat    624
80 Leu Ser Lys Ile Asn Gln Pro Tyr Gln Lys Phe Leu Asp Val Leu Asn
81               195               200               205
83 acc att aaa aat gca tct gat tca gat gga caa gat ctt tta ttt act    672
84 Thr Ile Lys Asn Ala Ser Asp Ser Asp Gly Gln Asp Leu Leu Phe Thr
85     210               215               220
87 aat cag ctt aag gaa cat ccc aca gac ttt tct gta gaa ttc ttg gaa    720
88 Asn Gln Leu Lys Glu His Pro Thr Asp Phe Ser Val Glu Phe Leu Glu
89 225               230               235               240
91 caa aat agc aat gag gta caa gaa gta ttt gcg aaa gct ttt gca tat    768
92 Gln Asn Ser Asn Glu Val Gln Glu Val Phe Ala Lys Ala Phe Ala Tyr
93               245               250               255
95 tat atc gag cca cag cat cgt gat gtt tta cag ctt tat gca ccg gaa    816
96 Tyr Ile Glu Pro Gln His Arg Asp Val Leu Gln Leu Tyr Ala Pro Glu
97               260               265               270
99 gct ttt aat tac atg gat aaa ttt aac gaa caa gaa ata aat cta tcc    864
100 Ala Phe Asn Tyr Met Asp Lys Phe Asn Glu Gln Glu Ile Asn Leu Ser
101     275               280               285
103 ttg gaa gaa ctt aaa gat caa cgg atg ctg tca aga tat gaa aaa tgg    912
104 Leu Glu Glu Leu Lys Asp Gln Arg Met Leu Ser Arg Tyr Glu Lys Trp
105     290               295               300
107 gaa aag ata aaa cag cac tat caa cac tgg agc gat tct tta tct gaa    960
108 Glu Lys Ile Lys Gln His Tyr Gln His Trp Ser Asp Ser Leu Ser Glu
109 305               310               315               320
111 gaa gga aga gga ctt tta aaa aag ctg cag att cct att gag cca aag   1008
112 Glu Gly Arg Gly Leu Leu Lys Lys Leu Gln Ile Pro Ile Glu Pro Lys
113               325               330               335
115 aaa gat gac ata att cat tct tta tct caa gaa gaa aaa gag ctt cta   1056
116 Lys Asp Asp Ile Ile His Ser Leu Ser Gln Glu Glu Lys Glu Leu Leu
117               340               345               350
119 aaa aga ata caa att gat agt agt gat ttt tta tct act gag gaa aaa   1104
120 Lys Arg Ile Gln Ile Asp Ser Ser Asp Phe Leu Ser Thr Glu Glu Lys
121     355               360               365
123 gag ttt tta aaa aag cta caa att gat att cgt gat tct tta tct gaa   1152
124 Glu Phe Leu Lys Lys Leu Gln Ile Asp Ile Arg Asp Ser Leu Ser Glu
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128 Glu Glu Lys Glu Leu Leu Asn Arg Ile Gln Val Asp Ser Ser Asn Pro
129 385             390             395             400
131 tta tct gaa aaa gaa aaa gag ttt tta aaa aag ctg aaa ctt gat att   1248
132 Leu Ser Glu Lys Glu Lys Glu Phe Leu Lys Lys Leu Lys Leu Asp Ile
133             405             410             415
135 caa cca tat gat att aat caa agg ttg caa gat aca gga ggg tta att   1296
136 Gln Pro Tyr Asp Ile Asn Gln Arg Leu Gln Asp Thr Gly Gly Leu Ile
137             420             425             430
139 gat agt ccg tca att aat ctt gat gta aga aag cag tat aaa agg gat   1344
140 Asp Ser Pro Ser Ile Asn Leu Asp Val Arg Lys Gln Tyr Lys Arg Asp
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143 att caa aat att gat gct tta tta cat caa tcc att gga agt acc ttg   1392
144 Ile Gln Asn Ile Asp Ala Leu Leu His Gln Ser Ile Gly Ser Thr Leu
145     450             455             460
147 tac aat aaa att tat ttg tat gaa aat atg aat atc aat aac ctt aca   1440
148 Tyr Asn Lys Ile Tyr Leu Tyr Glu Asn Met Asn Ile Asn Asn Leu Thr
149 465             470             475             480
151 gca acc cta ggt gcg gat tta gtt gat tcc act gat aat act aaa att   1488
152 Ala Thr Leu Gly Ala Asp Leu Val Asp Ser Thr Asp Asn Thr Lys Ile
153             485             490             495
155 aat aga ggt att ttc aat gaa ttc aaa aaa aat ttc aaa tat agt att   1536
156 Asn Arg Gly Ile Phe Asn Glu Phe Lys Lys Asn Phe Lys Tyr Ser Ile
157         500             505             510
159 tct agt aac tat atg att gtt gat ata aat gaa agg cct gca tta gat   1584
160 Ser Ser Asn Tyr Met Ile Val Asp Ile Asn Glu Arg Pro Ala Leu Asp
161         515             520             525
163 aat gag cgt ttg aaa tgg aga atc caa tta tca cca gat act cga gca   1632
164 Asn Glu Arg Leu Lys Trp Arg Ile Gln Leu Ser Pro Asp Thr Arg Ala
165     530             535             540
167 gga tat tta gaa aat gga aag ctt ata tta caa aga aac atc ggt ctg   1680
168 Gly Tyr Leu Glu Asn Gly Lys Leu Ile Leu Gln Arg Asn Ile Gly Leu
169 545             550             555             560
171 gaa ata aag gat gta caa ata att aag caa tcc gaa aaa gaa tat ata   1728
172 Glu Ile Lys Asp Val Gln Ile Ile Lys Gln Ser Glu Lys Glu Tyr Ile
173             565             570             575
175 agg att gat gcg aaa gta gtg cca aag agt aaa ata gat aca aaa att   1776
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179 caa gaa gca cag tta aat ata aat cag gaa tgg aat aaa gca tta ggg   1824
180 Gln Glu Ala Gln Leu Asn Ile Asn Gln Glu Trp Asn Lys Ala Leu Gly
181     595             600             605
183 tta cca aaa tat aca aag ctt att aca ttc aac gtg cat aat aga tat   1872
184 Leu Pro Lys Tyr Thr Lys Leu Ile Thr Phe Asn Val His Asn Arg Tyr
185     610             615             620
187 gca tcc aat att gta gaa agt gct tat tta ata ttg aat gaa tgg aaa   1920
188 Ala Ser Asn Ile Val Glu Ser Ala Tyr Leu Ile Leu Asn Glu Trp Lys
189 625             630             635             640
191 aat aat att caa agt gat ctt ata aaa aag gta aca aat tac tta gtt   1968
192 Asn Asn Ile Gln Ser Asp Leu Ile Lys Lys Val Thr Asn Tyr Leu Val
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193                  645                 650                 655
195 gat ggt aat gga aga ttt gtt ttt acc gat att act ctc cct aat ata   2016
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197                  660                 665                 670
199 gct gaa caa tat aca cat caa gat gag ata tat gag caa gtt cat tca   2064
200 Ala Glu Gln Tyr Thr His Gln Asp Glu Ile Tyr Glu Gln Val His Ser
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203 aaa ggg tta tat gtt cca gaa tcc cgt tct ata tta ctc cat gga cct   2112
204 Lys Gly Leu Tyr Val Pro Glu Ser Arg Ser Ile Leu Leu His Gly Pro
205     690                  695                 700
207 tca aaa ggt gta gaa tta agg aat gat agt gag ggt ttt ata cac gaa   2160
208 Ser Lys Gly Val Glu Leu Arg Asn Asp Ser Glu Gly Phe Ile His Glu
209 705                  710                 715                 720
211 ttt gga cat gct gtg gat gat tat gct gga tat cta tta gat aag aac   2208
212 Phe Gly His Ala Val Asp Asp Tyr Ala Gly Tyr Leu Leu Asp Lys Asn
213                  725                 730                 735
215 caa tct gat tta gtt aca aat tct aaa aaa ttc att gat att ttt aag   2256
216 Gln Ser Asp Leu Val Thr Asn Ser Lys Lys Phe Ile Asp Ile Phe Lys
217          740                 745                 750
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249          35                  40                  45
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252     50                  55                  60
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255 65                  70                  75                  80
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```

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270 145                150                155                160
272 Val Leu Val Ile Gln Ser Ser Glu Asp Tyr Val Glu Asn Thr Glu Lys
273              165                170                175
275 Ala Leu Asn Val Tyr Tyr Glu Ile Gly Lys Ile Leu Ser Arg Asp Ile
276              180                185                190
278 Leu Ser Lys Ile Asn Gln Pro Tyr Gln Lys Phe Leu Asp Val Leu Asn
279      195                200                205
281 Thr Ile Lys Asn Ala Ser Asp Ser Asp Gly Gln Asp Leu Leu Phe Thr
282      210                215                220
284 Asn Gln Leu Lys Glu His Pro Thr Asp Phe Ser Val Glu Phe Leu Glu
285 225                230                235                240
287 Gln Asn Ser Asn Glu Val Gln Glu Val Phe Ala Lys Ala Phe Ala Tyr
288              245                250                255
290 Tyr Ile Glu Pro Gln His Arg Asp Val Leu Gln Leu Tyr Ala Pro Glu
291              260                265                270
293 Ala Phe Asn Tyr Met Asp Lys Phe Asn Glu Gln Glu Ile Asn Leu Ser
294      275                280                285
296 Leu Glu Glu Leu Lys Asp Gln Arg Met Leu Ser Arg Tyr Glu Lys Trp
297      290                295                300
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300 305                310                315                320
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315 385                390                395                400
317 Leu Ser Glu Lys Glu Lys Glu Phe Leu Lys Lys Leu Lys Leu Asp Ile
318              405                410                415
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321              420                425                430
323 Asp Ser Pro Ser Ile Asn Leu Asp Val Arg Lys Gln Tyr Lys Arg Asp
324      435                440                445
326 Ile Gln Asn Ile Asp Ala Leu Leu His Gln Ser Ile Gly Ser Thr Leu
327      450                455                460
329 Tyr Asn Lys Ile Tyr Leu Tyr Glu Asn Met Asn Ile Asn Asn Leu Thr
330 465                470                475                480
332 Ala Thr Leu Gly Ala Asp Leu Val Asp Ser Thr Asp Asn Thr Lys Ile
333              485                490                495
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